FIG 1A

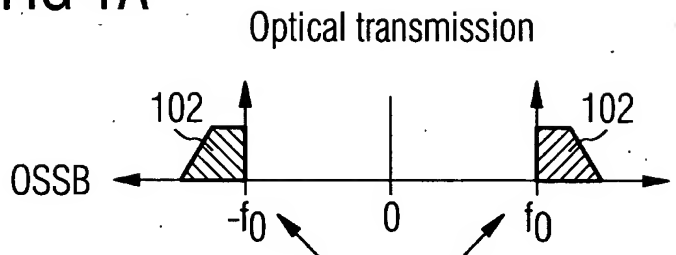



FIG 1B

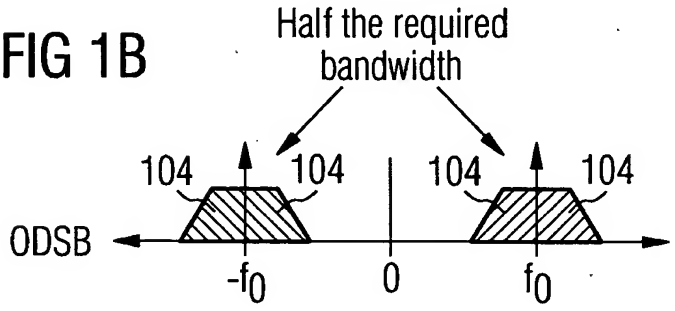



FIG 2A

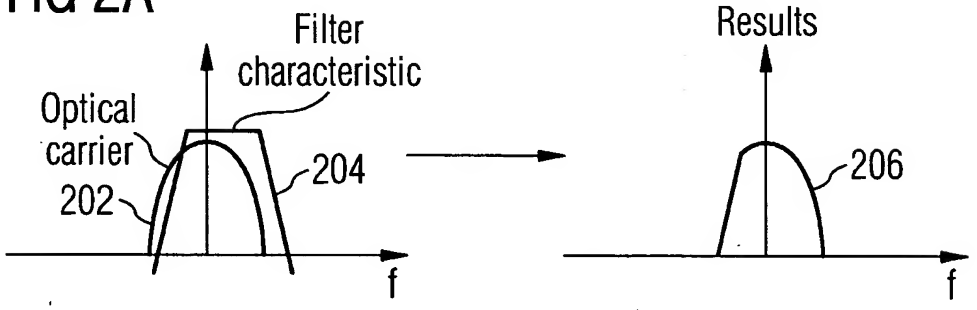



FIG 2B

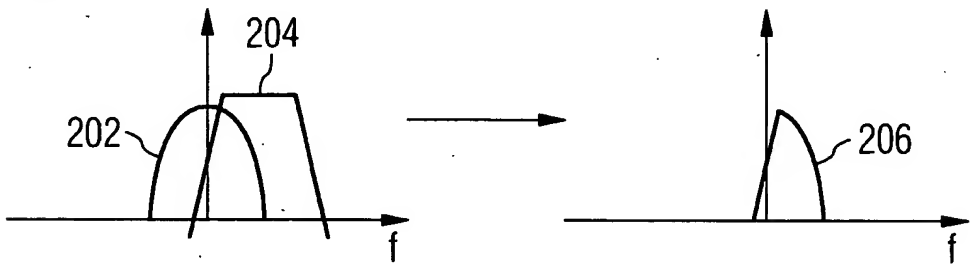


FIG 3

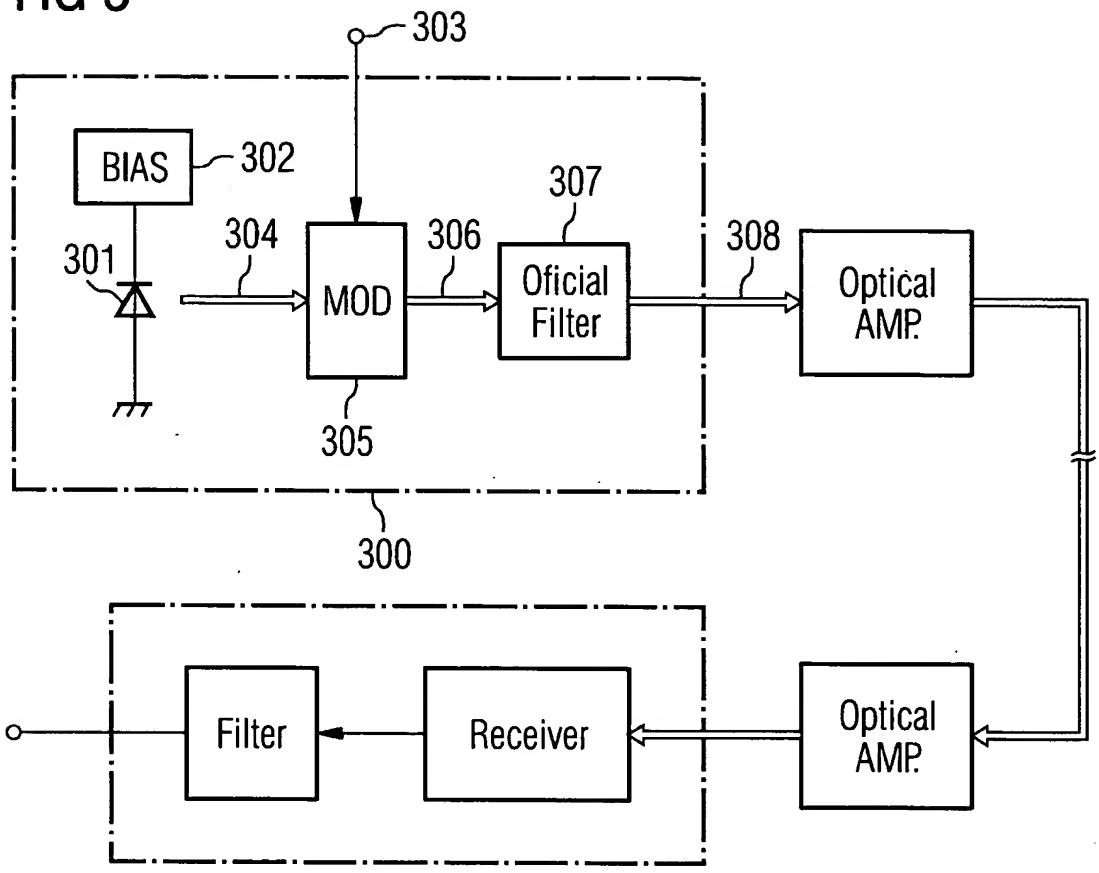

303
BIAS
302
301
304
MOD
306
307
Oficial Filter
308
Optical AMP.
305
300
Filter
Receiver
Optical AMP.

FIG 4A

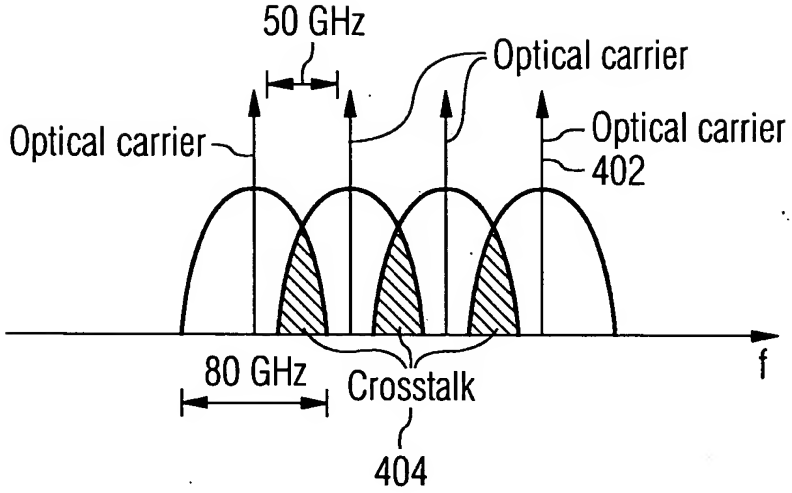



FIG 4B

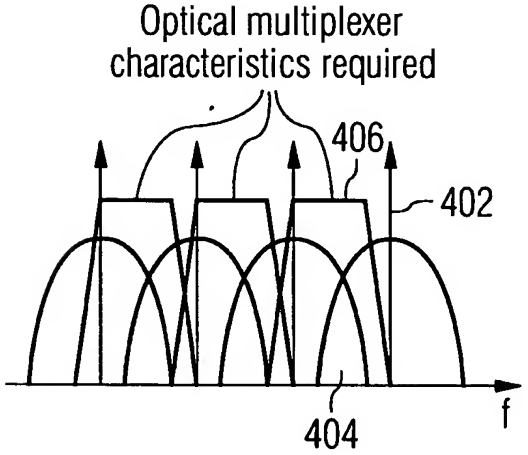
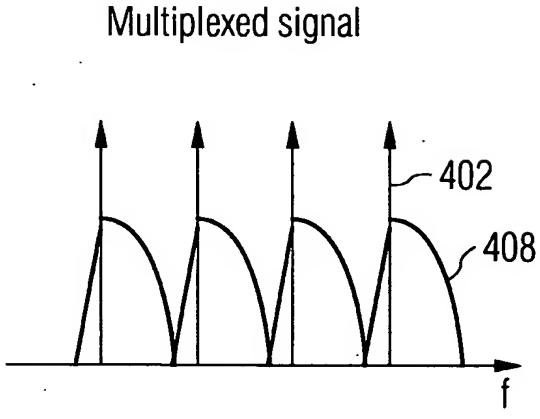



FIG 4C



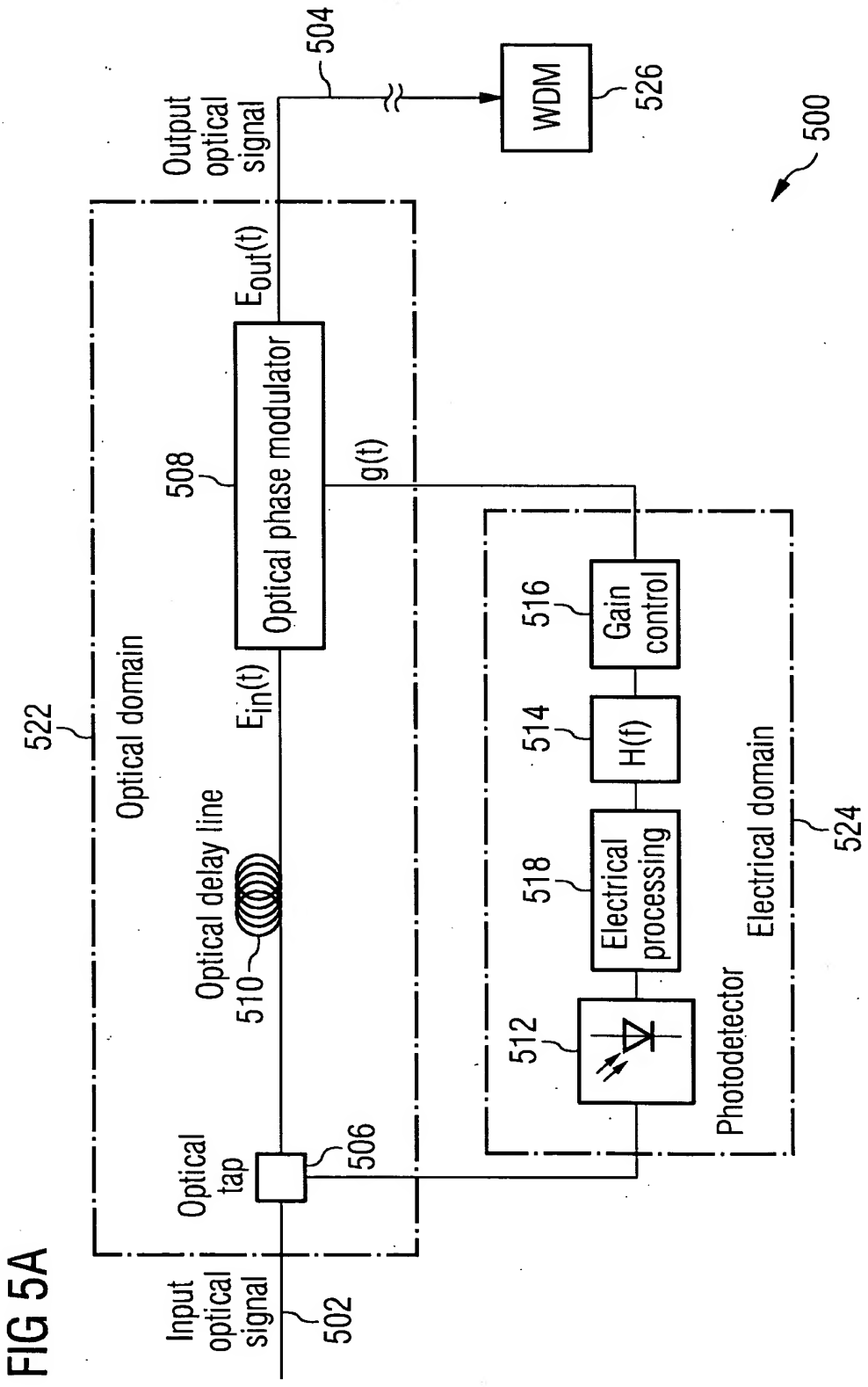

500
504
Output optical signal
WDM
526
$E_{out}(t)$
508
Optical phase modulator
g(t)
522
Optical domain
$E_{in}(t)$
Optical delay line
510
Optical tap
506
Input optical signal
502
516
Gain control
514
H(f)
518
Electrical processing
512
Photodetector
Electrical domain
524

FIG 5A

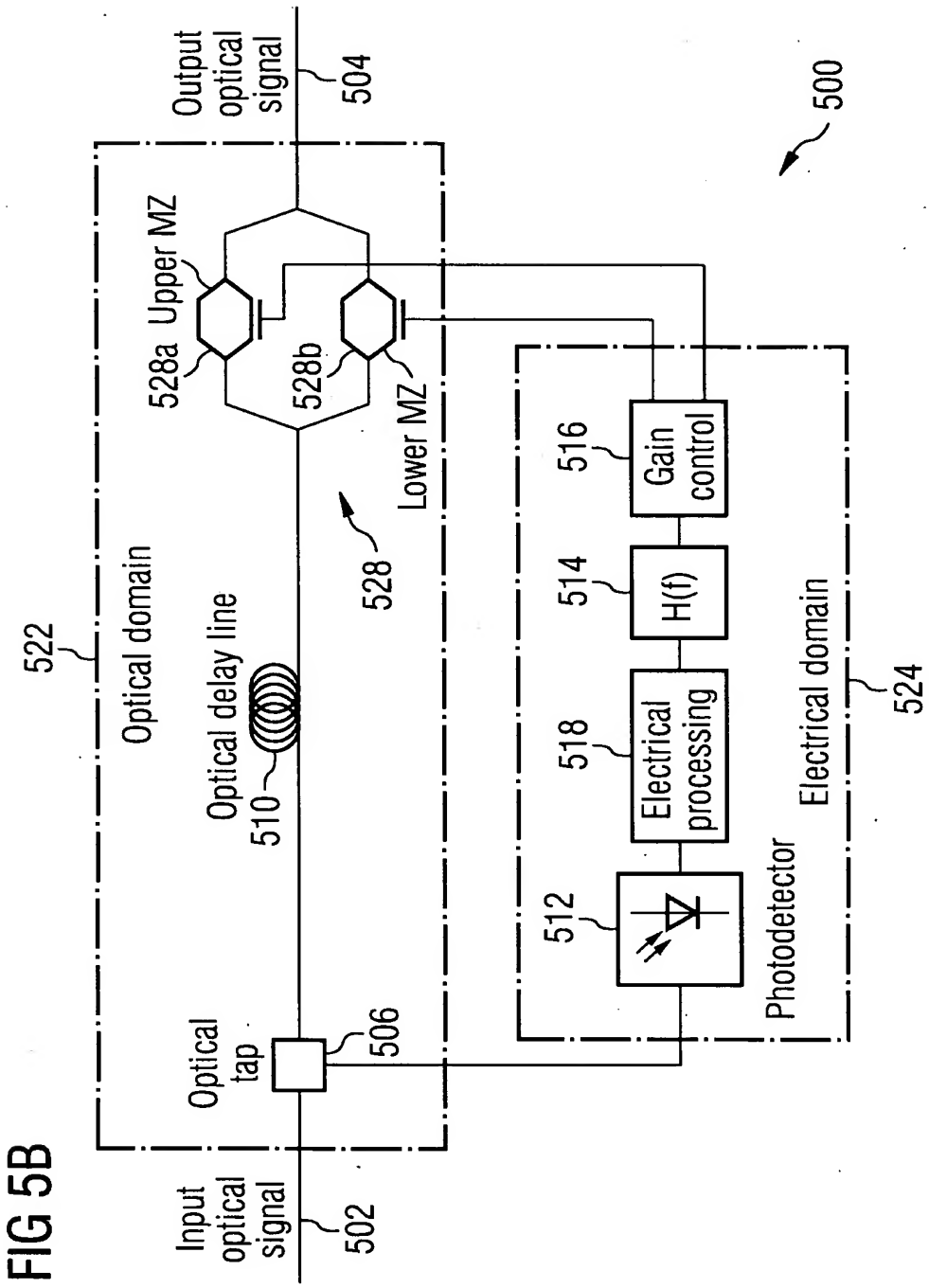

500
Output optical signal
504
Upper MZ
528a
528b
Lower MZ
528
Optical domain
522
Optical delay line
510
Optical tap
506
Input optical signal
502
Gain control
516
H(f)
514
Electrical processing
518
Photodetector
512
Electrical domain
524

FIG 5B

FIG 6A

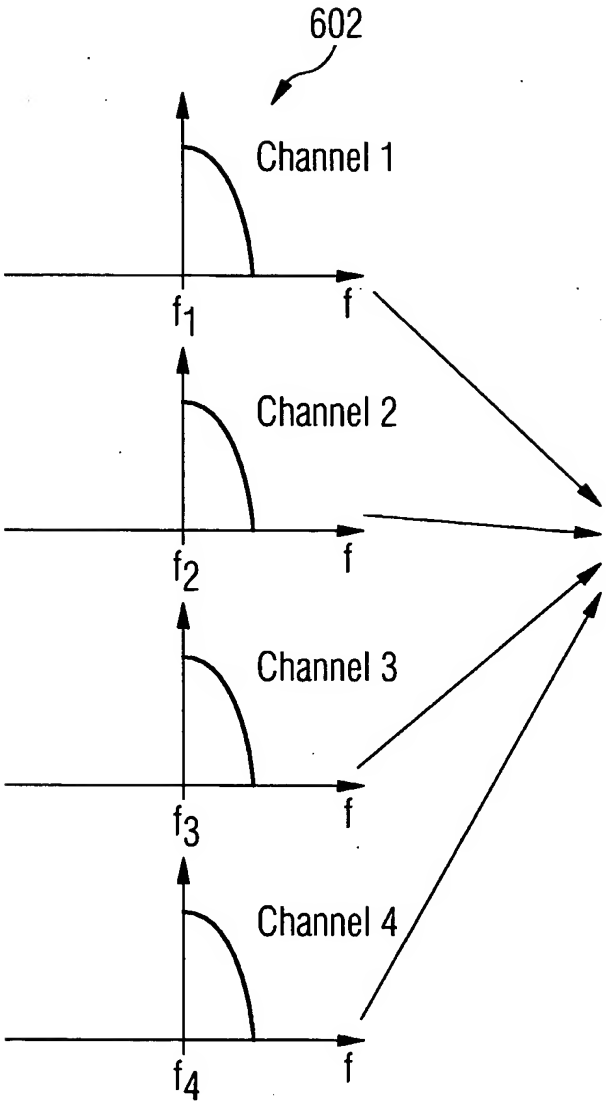
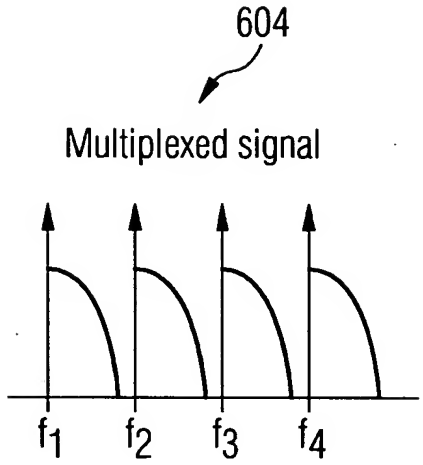

602
Channel 1
f1
f
Channel 2
f2
f
Channel 3
f3
f
Channel 4
f4
f

FIG 6B


604
Multiplexed signal
f1
f2
f3
f4